

Claims

1. An electrical machine having a rotor (10), in particular a claw pole rotor, having an exciter system of electrically excited individual poles in the rotor (10) in the form of electromagnetically excited poles (28) and counterpart poles (34), having a pole gap closure (55), inserted between the poles (28) and counterpart poles (34) that alternate on the circumference of the rotor (10), which at least partly fills the open spaces, characterized in that the pole gap closure (55) is braced by at least one of its axial end regions, via projections (64), on pole roots (31, 37).

2. The electrical machine of claim 1, characterized in that the pole gap closure (55) in the region of the projections (64) has recesses (67) into which the projections (64) are fitted, so that surfaces oriented outward of the pole gap closure (55), poles (28) and counterpart poles (34) result in an essentially cylindrical surface of the rotor (10).

3. The electrical machine of claim 2, characterized in that the projections (64) are fabricated by a reshaping process of the pole wheels (13, 16). *in this*

4. The electrical machine of [one of the foregoing claims] claim 1, characterized in that between at least one end region of the pole gap closure (55) and at least one throat (79) between two pole roots (31; 37), an opening to a chamber radially inside the poles (28) and counterpart poles (34) is recessed out.

5. The electrical machine of [one of the foregoing claims]

claim 1, characterized in that a transition between the surfaces of the pole gap closures (55) and the poles (28) and counterpart poles (34) is effected in infinitely graduated fashion.

5 6. The electrical machine of [one of the foregoing claims] claim 1, characterized in that the pole gap closure (55) has bar-shaped regions (70), which are joined to one another by a ring (37).

10 7. The electrical machine of claim 6, characterized in that at least one end region (61) is joined to the ring (73) by a face element (76).

15 8. The electrical machine of claim 7, characterized in that at least one face element (76) is braced on a radially inward-oriented underside of a pole (28) or counterpart pole (34).

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Claims

1. An electrical machine having a rotor (10), in particular a claw pole rotor, having an exciter system of electrically excited individual poles in the rotor (10) in the form of electromagnetically excited poles (28) and counterpart poles (34), having a pole gap closure (55), inserted between the poles (28) and counterpart poles (34) that alternate on the circumference of the rotor (10), which at least partly fills the open spaces, characterized in that the pole gap closure (55) is braced by at least one of its axial end regions, via projections (64), on pole roots (31, 37).

2. The electrical machine of claim 1, characterized in that the pole gap closure (55) in the region of the projections (64) has recesses (67) into which the projections (64) are fitted, so that surfaces oriented outward of the pole gap closure (55), poles (28) and counterpart poles (34) result in an essentially cylindrical surface of the rotor (10).

3. The electrical machine of claim 2, characterized in that the projections (64) are fabricated by a reshaping process of the pole wheels (13, 16).

4. The electrical machine of claim 1, characterized in that between at least one end region of the pole gap closure (55) and at least one throat (79) between two pole roots (31; 37), an opening to a chamber radially inside the poles (28) and counterpart poles (34) is recessed out.

5. The electrical machine of claim 1, characterized in

that a transition between the surfaces of the pole gap closures (55) and the poles (28) and counterpart poles (34) is effected in infinitely graduated fashion.

5 6. The electrical machine of claim 1, characterized in that the pole gap closure (55) has bar-shaped regions (70), which are joined to one another by a ring (37).

10 7. The electrical machine of claim 6, characterized in that at least one end region (61) is joined to the ring (73) by a face element (76).

15 8. The electrical machine of claim 7, characterized in that at least one face element (76) is braced on a radially inward-oriented underside of a pole (28) or counterpart pole (34).

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